PCT/FR2003/002218

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference B0443WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/FR2003/002218	International filing date (*day/month/year*) 11 juillet 2003 (11.07.2003)	Priority date (*day/month/year*) 24 juillet 2002 (24.07.2002)
International Patent Classification (IPC) or national classification and IPC F25B 17/04		
Applicant CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
22 décembre 2003 (22.12.2003)	22 October 2004 (22.10.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Internat[redacted] application No.
PCT/FR2003/002218

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:
pages 1-15, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☒ the claims:
pages 1-13, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

☒ the drawings:
pages 1/6-6/6, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2-5, 8-9, 12, 13	YES
	Claims	1, 6, 7, 10, 11	NO
Inventive step (IS)	Claims	9, 12	YES
	Claims	2-5, 8, 13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following document:

D1: WO 97/40328 A.

1.1 The present application does not fulfil the requirements set forth in PCT Article 33(1) because the subject matter of claim 6 does not comply with the requirement of novelty defined in PCT Article 33(2).

Document D1 describes (page 3, line 10 to page 9, line 7; figure 1) plant including an endothermic element consisting of a device (16, 18), and an exothermic element consisting of a first reactor (10) and a second reactor (12), which reactors (10, 12) are in mutual thermal contact in such a way that each constitutes an active thermal mass for the other, wherein said reactors (10, 12) and said device (16, 18) are provided with means (24, 26, 28, 30) for selectively establishing communication therebetween, and said reactors (10, 12) are provided with heating means and heat-discharge means (38), wherein, at the start of a cycle, said reactors (10, 12) each contain a sorbent (S1, S2)

capable of contributing to a reversible sorption process involving a gas, and the reversible sorption equilibrium temperature in said first reactor is higher than that in said second reactor at a given pressure, and wherein said device contains a compound capable of undergoing a liquid-gas phase transition or a gas-rich sorbent capable of contributing to a reversible sorption process in which the equilibrium temperature is lower than the reversible sorption equilibrium temperature in said second reactor.

It follows that this known plant has all of the features disclosed in claim 6.

Since document D1 also discloses the features in claims 7, 10 and 11, the subject matter of said claims is not novel.

1.2 Dependent claims 8 and 13 describe only structural measures and, in so far as said measures are not already disclosed in the search report documents, their use with the subject matter of the claims on which said claims are dependent is routine practice to a person skilled in the art.

As a result, the subject matter of these claims does not involve an inventive step (PCT Article 33(3)).

1.3 Claims 9 and 12 fulfil the PCT requirements of novelty and inventive step.

2.1 The method claimed in claim 1 is the one implemented using the plant claimed in claim 6, which is not novel.

It follows that the subject matter of claim 1 is not novel.

2.2 Dependent claims 2 to 5 describe only structural measures and, in so far as said measures are not already disclosed in the search report documents, their use with the subject matter of the claims on which said claims are dependent is routine practice to a person skilled in the art.

As a result, the subject matter of these claims does not involve an inventive step (PCT Article 33(3)).